Operating Instructions

Plug

> 8575/12

1 Contents

1 Contents 2
2 General Information 2
3 Safety instructions 3
4 Conformity to standards 3
5 Function 3
6 Technical Data 4
7 Mounting 6
8 Installation 7
9 Commissioning 8
10 Repairs and Maintenance 8
11 Accessories and spare parts 9
12 Disposal 9
13 Type Examination Certificate (Page 1) 10
14 Declaration of conformity 11
15 Declaration of conformity 12

2 General Information

2.1 Manufacturer

R. STAHL Schaltgeräte GmbH
Am Bahnhof 30
D-74638 Waldenburg

Telephone: +49 7942 943-0
Fax: +49 7942 943-4333
Internet: www.stahl.de

2.2 Information about the Operating Instructions

ID NO.: 8575617300
Publication Code: S-BA-8575/12-02-en-11/04/2007

We reserve the right to make technical changes without notice.

2.3 Purpose of these instructions

Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations.
Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.
These instructions give a brief summary of the most important safety measures. They supplement the corresponding regulations which the staff responsible must study.

3 Safety instructions

Use the device only for its intended purpose.

Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.

No changes to the device impairing its explosion protection are permitted.

Operate the device only if it is clean and undamaged.

Observe the following when setting up and using the device:

- national safety regulations
- national accident prevention regulations
- national installation regulations (e.g. IEC/EN 60079-14)
- generally recognized technical regulations
- safety guidelines in these operating instructions
- characteristic values and rated operating conditions on the rating and data plates
- additional instruction plates on the device

Any damage can invalidate the Ex-protection.

The plug may only be used when fully fitted!

Plug type 8575/12 can be used with the following products of R. STAHL Schaltgeräte GmbH:

- Wall-mounting socket types 8575/11 and 8575/13
- Coupler types 8575/16 and 8575/14
- Plug type 8575/12 also fits industrial type sockets (to CEE standard)

The functioning of the plug must always be checked after any system short-circuit.

4 Conformity to standards

The plug complies with the following standards and regulations:

- Directive 94/9/EC
- EN 50014, EN 50018, EN 50019 (comparable with IEC 60079-0, IEC 60079-1, IEC 60079-7)
- EN 50281-1-1
- IEC 60309, IEC 60529

Type 8575/12 plug is certified for use in hazardous areas, zones 1, 2 and zone 22, non-conducting dust.

5 Function

The plug type 8575/12 is an explosion-protected electrical device. It connects portable and fixed electrical equipment as well as cables and circuits in hazardous areas.

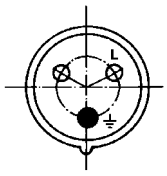
6 Technical Data

Explosion protection		
Gas explosion protection	⟨Ex⟩ II 2 G EEx ed IIC T*	
	* T6: $T_a \leq 45$ °C	
	T5: $T_a \leq 55$ °C	
Dust explosion protection	⟨Ex⟩ II 3 D IP 54 T**	
	** T80 °C: $T_a \leq 45$ °C	
	T95 °C: $T_a \leq 55$ °C	
Certificates		
Gas explosion protection	PTB 01 ATEX 1044	
Dust explosion protection	see certificate	
Ambient temperature	Standard:	-20 °C ... +40 °C
	Special:	-50 °C ... +55 °C
Rated operational voltage U_e	low voltage:	max. 690 V
	extra-low voltage:	max. 50 V
Rated working current I_e	max. 16 A	
Back-up fuse	max. 35 A gL	
Rated isolation voltage	low voltage:	750 V
	extra-low voltage:	60 V
Connection cross-section	max. 4 mm^2	
Terminal tightening torque	max. 2 Nm	
Enclosure material	Polyamide	
Degree of protection	without protective cap:	IP 54
	with protective cap:	IP 66
	acc. to IEC 60529	

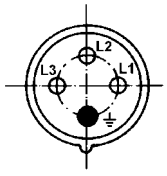
Arrangement of contact pins and terminal references:

Front view of plug contact pin positions

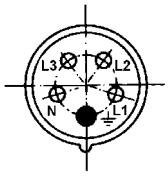
No. of poles 2P + ⏚ 3P + ⏚ 3P + N + ⏚



09195E00



09191E00



09196E00

Examples illustrated show 6 o'clock position

Identification colour and position of earth pin relative to polarising key for different voltages and frequencies to IEC 60309-2:

No. of poles	Frequency [Hz]	Rated operating voltage[V]	Identification colour	Earth contact pin position
8575/..-3.. 2P + ⏚	50 - 60	100 - 130	yellow	4 o'clock
	50 - 60	200 - 250	blue	6 o'clock
	60	277	grey	5 o'clock
	50 - 60	380 - 415	red	9 o'clock
		480 - 500	black	7 o'clock
		after isolating transformer	4)	12 o'clock
	100 - 300	> 50	green	10 o'clock
	> 300 - 500	> 50	green	2 o'clock
	DC	> 50 - 250	light grey 5)	3 o'clock
		> 250	light grey 5)	8 o'clock
8575/..-4.. 3P + ⏚	50 - 60	100 - 130	yellow	4 o'clock
			blue	9 o'clock
		380 - 415	red	6 o'clock
	60	440 - 460 1)	red	11 o'clock
	50 - 60	480 - 500	black	7 o'clock
		600 - 690	black	5 o'clock
		after isolating transformer	4)	12 o'clock
	50 60	380 440 2)	red	3 o'clock
	100 - 300	> 50	green	10 o'clock 3)
	> 300 - 500	> 50	green	2 o'clock
8575/..-5.. 3P + N + ⏚	50 - 60	57/100 - 75/130	yellow	4 o'clock
		120/208 - 144/250	blue	9 o'clock
		200/346 - 240/415	red	6 o'clock
		277/480 - 288/500	black	7 o'clock
		347/600 - 400/690	black	5 o'clock
	60	250/440 - 265/460 1)	red	11 o'clock
	50 60	220/380 250/440 2)	red	3 o'clock
	100 - 300	> 50	green	10 o'clock 3)
	> 300 - 500	> 50	green	2 o'clock
any no. of poles	All operating voltages and currents (frequencies) not listed above			1 o'clock

1) mainly for installations on board ship

2) only for refigerated containers (to ISO standards)

3) not standardised, but recommended preferred position

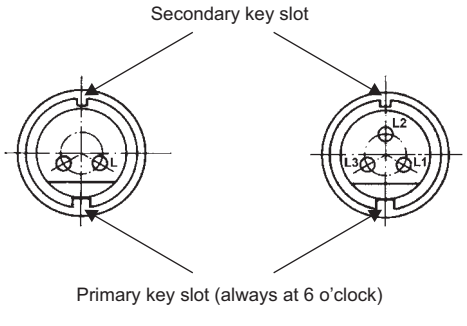
4) Identification colour in accordance with voltage identification colour

5) not standardised

Arrangement of contact pins and terminal references for extra-low voltage:

Front view of plug contact pin positions

No. of poles 2P 3P

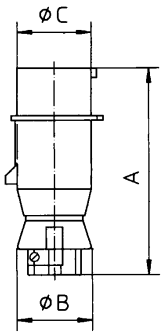


Identification colour and position of secondary key slot relative to primary key slot for different voltages and frequencies to IEC 60309-2:

Rated operating voltage [V]	Frequency [Hz]	Secondary slot position		Identification colour
		2-pole	3-pole	
20 - 25	50 - 60	without slot	without slot	violet
40 - 50	50 - 60	12 o'clock	12 o'clock	light grey
20 - 25 und 40 - 50	100 - 200	4 o'clock	4 o'clock	green
	300	2 o'clock	2 o'clock	
	400	3 o'clock	3 o'clock	
	> 400 - 500	11 o'clock	11 o'clock	
20 - 25	DC	10 o'clock	--	violet
40 - 50	DC	10 o'clock	--	light grey

7 Mounting

Dimension drawings (all dimensions in mm) - subject to alterations



8575/12

Type	A [mm]	B [mm]	C [mm]
8575/12-1.. (16 A, 2P)	140	53.0	42.0
8575/12-2.. (16 A, 3P)	140	53.0	42.0
8575/12-3.. (16 A, 2P + ⏚)	159	58.5	43.5
8575/12-4.. (16 A, 3P + ⏚)	159	58.5	49.0
8575/12-5.. (16 A, 3P + N + ⏚)	159	58.5	56.0

Plug typ 8575/12 mounting position:

When unplugged, the plug should be suspended so that the contact pins hang down.

Transport and storage are permitted only in the original packing.

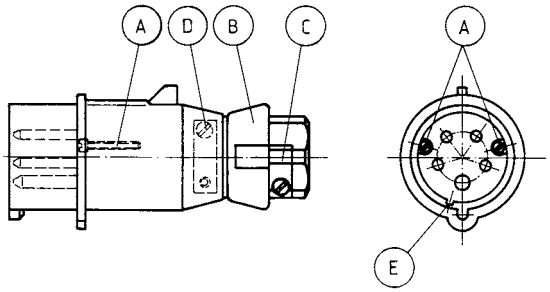
☞	To avoid contact pins becoming dirty, cover them with a protective cap (for order code see "Accessories and Spare Parts").

8 Installation

Mains connection:

- The conductors must be carefully connected.
- The conductor insulation must reach to the terminal. The conductor itself must not be damaged (nicked) when removing the insulation.
- Ensure that the maximum permissible conductor temperatures are not exceeded by suitable selection of cables and means of running them.

During installation, please observe the national standards as well as the recognized technical regulations (also the terminal information given under Technical Data).



A = Screw
B = Pressure screw
C = Clamp
D = Tension reliever
E = Guide slot

Connections for plug 8575/12:

- Loosen screw (A) and pull the plug body out of its housing by hand.
- Loosen clamp (C) and pressure screw (B). Remove dust protection plate, pressure ring and gasket from housing.
- Push cable (max. 4 mm^2) through pressure screw, pressure ring, gasket and housing. If necessary, increase gasket internal diameter by trimming it to match cable.
- Remove insulation from cable (see illustration).

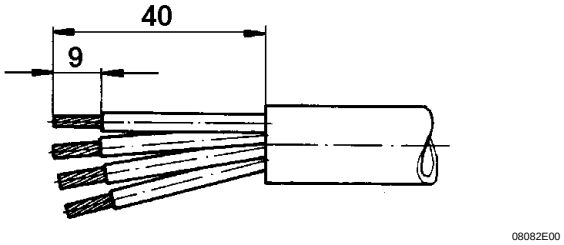


Illustration of cable insulation stripping

- Connect cable to plug body. The stripped cable ends must be pushed fully underneath the clamps. Adjust cable - terminals must not be under tension. Then fit tension reliever (D).

- Plug body must be so fixed in the housing that key and guide slot (E) are engaged.
- Push gasket into housing, place pressure ring on gasket and tighten pressure screw (B). Secure pressure screw with clamp (C).

☞	When terminal sleeves are fitted, they must be gas-tight and applied with a suitable tool.

Earth connection:

An earth connection must be made in all circumstances. Extra-low voltage plug and socket assemblies have no earth contact.

9 Commissioning

Before commissioning, ensure that

- the plug has been installed according to the directions
- the plug is not damaged
- there are no foreign bodies inside the plug
- the connection area is clean
- connections have been correctly made
- the cable has been brought in correctly
- all screws and nuts are fully tightened
- cable glands are securely tightened
- unused cable entries are sealed with plugs certified to Directive 94/9/EC and unused holes are sealed with stopping plugs certified to Directive 94/9/EC.

⚠ WARNING
The contact pin surface must not be damaged! Excessive tightening of the components referred to above can affect the degree of protection!

10 Repairs and Maintenance

Repairs and maintenance work on the plug may only be carried out by appropriately authorized and trained personnel.

Before any work commences, the plug must be disconnected from the supply.

⚠ WARNING
Observe the relevant national standards in the country of use!

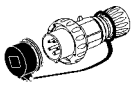
The following points must be checked during maintenance:

- clamping screw holding the cable is securely seated
- compliance with operating temperatures (to EN 50014)
- cracks in plastic enclosures
- damage to the gaskets
- damage to contact pin surface

If the contact pins are very dirty, they must be cleaned an coated with STAHL Special grease S1. For order code, see “Accessories and Spare Parts“.

11 Accessories and spare parts

⚠ WARNING
Use only original accessories and spare parts from R. STAHL Schaltgeräte GmbH.

Designation	Illustration	Description		Ordering code	Weight kg
Protective cap	 05365E00	for plug 16 A not for extra low voltage version	3 poles	8575907140	0,041
		for plug 16 A	4 poles	8575906140	0,048
		for plug 16 A	5 poles	8575905140	0,057
Grease		STAHL special grease S1 - 1kg pack		2706089	1,000

12 Disposal

Observe the national standards for refuse disposal.

☞	We are pleased to answer any special questions you may have. Please contact your nearest R. STAHL representative.

13 Type Examination Certificate (Page 1)

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) **EC-TYPE-EXAMINATION CERTIFICATE**

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 01 ATEX 1044

(4) Equipment: Plug-and-socket device, type 8575/..-...-.

(5) Manufacturer: R. STAHL Schaltgeräte GmbH

(6) Address: 74638 Waldenburg (Württ.), Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 01-11093.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2 **EN 50018:2000** **EN 50019:2000**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2 G EEx ed IIC T6 or T5

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, July 30, 2002

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • D-38116 Braunschweig

14 Declaration of conformity

EG-Konformitätserklärung
EC-Declaration Of Conformity
CE-Déclaration De Conformité

PTB 01 ATEX 1044

Wir (we; nous)

R. STAHL Schaltgeräte GmbH, Am Bahnhof 30, D-74638 Waldenburg

erklären in alleiniger Verantwortung, daß das Produkt	**Schaltersteckdose und Stecker Typen 8575/11, 8575/16 und 8575/12**
hereby declare in our sole responsibility, that the product	Socket and plug Type 8575/11, 8575/16 and 8575/12
déclarons de notre seule responsabilité, que le produit	Prise de courant avec interrupteur et fiche Type 8575/11, 8575/16 et 8575/12

auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten übereinstimmt
which is the subject of this declaration, is in conformity with the following standard(s) or normative documents
auquel cette déclaration se rapporte, est conforme aux norme (s) ou aux documents normatifs suivants

Bestimmungen der Richtlinie terms of the directive prescription de la directive	**Titel und/oder Nr. sowie Ausgabedatum der Norm** title and/or No. and date of issue of the standard titre et/ou No. ainsi que date d'émission des normes
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen 94/9/EC: Equipment and protective systems intended for use in potentially explosive atmospheres 94/9/CE: Appareils et systèmes de protection destinés á êtré utilisés en atmosphères explosibles	EN 50014:1997 +A1 +A2 EN 50018:2000 EN 50019:2000 EN 50020:1994
89/336/EWG: Elektromagnetische Verträglichkeit 89/336/EEC: Electromagnetic compatibility 89/336/CEE: Compatibilité électromagnétique	EN 60947-3:1999 EN 60947-4-1:2000

Waldenburg, 20.11.2001

Ort und Datum Place and date lieu et date	**Leiter Marketing und Entwicklung** Head of Marketing and Development Directeur Marketing et Développrment	**Leiter Qualitätsmanagement** Head of Quality Management Chef du dept. assurance de qualité

TXV 03/99 Papier: chlorfrei

EG-Konformitätserklärung
EC-Declaration of Conformity
CE-Déclaration de Conformité

Wir *(we; nous)*

R. STAHL Schaltgeräte GmbH, Am Bahnhof 30, D-74638 Waldenburg

8575/11, 8575/16 & 8575/12

erklären in alleiniger Verantwortung, dass das Produkt *Schaltersteckdose und Stecker*
hereby declare in our sole responsibility, that the product *Socket and plug*
déclarons de notre seule responsabilité, que le produit *Prise de courant avec interrupteur et fiche*

auf das sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten übereinstimmt
which is the subject of this declaration, is in conformity with the following standard(s) or normative documents
auquel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants

Bestimmungen der Richtlinie *terms of the directive* *prescription de la directive*	**Titel und/oder Nr. sowie Ausgabedatum der Norm** *title and/or No. and date of issue of the standard* *titre et/ou No. ainsi que date d'émission des normes*
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen *94/9/EC: Equipment and protective systems intended for use in potentially explosive atmospheres* *94/9/CE: Appareils et systèmes de protection destinés à être utilisés en atmosphères explosibles*	EN 50281-1-1 : 1999 Zone 22, nichtleitfähiger Staub Zone 22 with non-conductive dust. Zone 22 avec poussières non conductrices.
89/336/EWG: **Elektromagnetische Verträglichkeit** *89/336/EEC: Electromagnetic compatibility* *89/336/CEE: Compatibilité électromagnétique*	EN 60529: 2000 EN 60947-3: 1999 + A1 EN 60947-4-1: 2003 EN 60309-1: 1999

Qualitätssicherung Produktion:
Production Quality Assessment: PTB 96 ATEX Q006-4
Assurance Qualitée Production:

Kenn-Nr. der benannten Stelle / *Notified Body number / N° de l'organisme de certification:* 0102

Waldenburg, 09. Nov. 2006	i.V.	i.V.
Ort und Datum *Place and date* *lieu et date*	**B. Limbacher** **Leiter Entwicklung** *Head of Development* *Directeur Développement*	**Dr. S. Jung** **Leiter Qualitätsmanagement** *Director Quality Management Dept.* *Directeur Dept. Assurance de Qualité*

F723.00